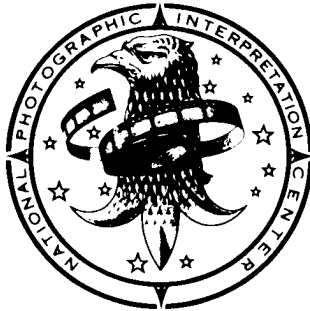


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NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER

## Summary Report

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(See inside cover)

# MODIFIED FAN SONG RADAR, LAUNCH COMPLEX A, SARY-SHAGAN MISSILE TEST CENTER, USSR (S)

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ZUA

JUNE 1977

SR-031/77

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**Warning Notice**  
**Sensitive Intelligence Sources and Methods Involved**  
**(WNINTEL)**

**NATIONAL SECURITY INFORMATION**  
**Unauthorized Disclosure Subject to Criminal Sanctions**



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**DISSEMINATION CONTROL ABBREVIATIONS**

NOFORN-	Not Releasable to Foreign Nationals
NOCONTRACT-	Not Releasable to Contractors or Contractor/Consultants
PROPIN-	Caution-Proprietary Information Involved
USIBONLY-	USIB Departments Only
ORCON-	Dissemination and Extraction of Information Controlled by Originator
REL . . .	This Information has been Authorized for Release to . . .

Top Secret CHESS RUFF [REDACTED]

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## Modified FAN SONG Radar, Launch Complex A, Sary-Shagan Missile Test Center, USSR (S)

(TSR) [REDACTED] a modified FAN SONG radar was identified in the guidance area for launch site 1 at Sary-Shagan launch complex A. A rectangular reflector, with an antenna feed positioned forward of the reflector, was attached to the end of the horizontal trough where the control dish is normally attached. No dishes were observed attached to the horizontal trough. [REDACTED]

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[REDACTED] The size of the reflector appears to be very similar to that of the reflector on the van-mounted WILD CARD radar parked near the modified FAN SONG.

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(TSR) This modification was probably made to the FAN SONG E radar that appeared at launch site 2 [REDACTED] Six SA-2 launchers were positioned near the FAN SONG E at site 2 [REDACTED] the three dishes associated with the FAN SONG E had been removed. Two of the dishes were observed in a nearby trailer. A rectangular reflector had probably been attached to the end of the horizontal trough. [REDACTED] the trailer with the two dishes had been removed from the site, but the probable modified FAN SONG and the six SA-2 launchers were still present. [REDACTED] the probable modified FAN SONG and the six launchers were no longer present at site 2. They had probably been moved to nearby site 1 where six additional SA-2 launchers and a modified FAN SONG were observed.

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(TSCRZU) A similar modified FAN SONG was observed at launch site 1 on photography [REDACTED] and remained there until August 1972.\* That particular FAN SONG had [REDACTED] reflector attached to the end of the horizontal trough with a probable antenna feed [REDACTED] in front of the reflector. It also had a dish, [REDACTED] mounted on the horizontal trough in approximately the same position previously occupied by one of the E dishes. [REDACTED]

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\*NPIC [REDACTED] RCA-19/0009/72, *Launch Complex A and SAM Launch Complex B04-5, Sary-Shagan Missile Test Center*, Feb 72 (TOP SECRET CHESS RUFF [REDACTED])

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## List of Conversion Factors by Classification

### UNITS OF LENGTH

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
MILLIMETERS	0.0394	INCHES
CENTIMETERS	0.3937	INCHES
INCHES	25.4000	MILLIMETERS
INCHES	2.5400	CENTIMETERS
FEET	0.3048	METERS
FEET	0.0003	KILOMETERS
YARDS	0.9144	METERS
METERS	3.2808	FEET
METERS	0.0005	MILES(NAUTICAL)
METERS	1.0936	YARDS
KILOMETERS	3280.8400	FEET
KILOMETERS	0.6214	MILES(STATUTE)
KILOMETERS	0.5400	MILES(NAUTICAL)
MILES(STATUTE)	1.6093	KILOMETERS
MILES(NAUTICAL)	6076.1154	FEET
MILES(NAUTICAL)	1.8520	KILOMETERS
MILES(NAUTICAL)	1852.0000	METERS

### UNITS OF MASS

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
KILOGRAMS	2.2046	POUNDS(AVOIR.)
POUNDS(AVOIR.)	0.4536	KILOGRAMS
SHORT TONS	0.9072	METRIC TONS
METRIC TONS	1.1023	SHORT TONS
METRIC TONS	0.9842	LONG TONS
LONG TONS	1.0160	METRIC TONS

### UNITS OF VOLUME

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
LITERS	0.2642	GALLONS
LITERS	0.0063	BARRELS(POL)
LITERS	0.0010	CUBIC METERS
GALLONS	3.7854	LITERS
GALLONS	0.1337	CUBIC FEET
GALLONS	0.0238	BARRELS(POL)
GALLONS	0.0038	CUBIC METERS
BUSHELS	0.0352	CUBIC METERS
CUBIC FEET	7.4805	GALLONS
CUBIC FEET	0.1781	BARRELS(POL)
CUBIC FEET	0.0283	CUBIC METERS
CUBIC YARDS	0.7646	CUBIC METERS
BARRELS(POL)	158.9873	LITERS
BARRELS(POL)	42.0000	GALLONS
BARRELS(POL)	5.6146	CUBIC FEET
BARRELS(POL)	0.1590	CUBIC METERS
CUBIC METERS	1000.0000	LITERS
CUBIC METERS	264.1721	GALLONS
CUBIC METERS	35.3147	CUBIC FEET
CUBIC METERS	28.3776	BUSHELS
CUBIC METERS	6.2898	BARRELS(POL)
CUBIC METERS	1.3080	CUBIC YARDS

### UNITS OF AREA

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
SQUARE CENTIMETERS	0.1550	SQUARE INCHES
SQUARE INCHES	6.4516	SQUARE CENTIMETERS
SQUARE FEET	0.0929	SQUARE METERS
SQUARE YARDS	0.8361	SQUARE METERS
SQUARE METERS	10.7639	SQUARE FEET
SQUARE METERS	1.1960	SQUARE YARDS
SQUARE METERS	1.0000	CENTARES
SQUARE METERS	0.0002	ACRES
SQUARE METERS	0.0001	HECTARES
ACRES	4046.8564	SQUARE METERS
ACRES	0.4047	HECTARES
HECTARES	10000.0000	SQUARE METERS
HECTARES	2.4711	ACRES

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[REDACTED]

[REDACTED]

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